JAXA’S MISSIONS & COLLABORATION TOWARD SPACE EXPLORATION

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JAXA’S APPROACH TO PROMOTE SPACE EXPLORATION

International Cooperation
- Utilization of ISS/Kibo
- Moon Exploration and beyond
- Cis-Lunar Platform (Gateway)

Industry & Academia Partnerships
- JAXA Space Exploration Innovation Hub
- Science Community discussions
PROMOTING LUNAR EXPLORATION

JAXA’s Planned Missions (Moon & Beyond)

- Kaguya
- SLIM (JFY2021)
- Traversing Exploration Prox. 2023-2024 with ISRO
- Sample Return Prox. 2026

Full-fledged Exploration/Utilization

JAXA Space Exploration Innovation Hub

- JAXA & private companies / research institutes bring together cutting-edge technologies for space exploration
- Taking full advantage of terrestrial technology.
- Contribution to our planet with innovative technologies.
CONCEPT OF
SPACE EXPLORATION INNOVATION HAB

- Space Exploration Tech
- Moon Landing
- Mars Exploration
- Solar System
- Lunar base

Technological Innovation

Promoting Industry Engagement
Create New Ecosystem

Private Companies
Universities
Research Institutes

Expanding Space Activities & Applications

JAXA

Active use of terrestrial technology

- Terrestrial Tech
- Resource Mining/Use
- Fuel Cells Bionics Energy Renewal
- Micro-machine Sensors
- Cutting-edge Robotics Actuators
- Self-driving Unmanned construction
ONGOING RESEARCH EXAMPLES

**Construction**

- Remote controlled construction

**Mini Robots Tech**

- Insectroid robot for lunar surface activities

**Agri Tech**

- Concept Study for Lunar Plant Factory
PROMOTING INTERNATIONAL COLLABORATIONS (EXAMPLES)

Diverse Capabilities
Different Contributions

Low Earth Orbit

ISS/Kibo Utilization
- Tech demo
- Research on life science, physiology, etc

Cis-Lunar Gateway
(Led by NASA)

Lunar Surface
Multiple Missions

MicroG
Partial G (1/6G, 1/3 G)

TansaX concept
- Agri. Plant factory on the Moon
- Construction + remote-based construction on Lunar Surface?

Mars

Instrument R&D
- Surface analysis, In-Situ Resource Utilization (ISRU)
- Small Rovers
- CubeSats
- …
THANK YOU FOR YOUR ATTENTION

We will continue to expand our frontiers beyond Low Earth Orbit to Moon and Mars, and further into deep space.
BACKUP CHART
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